

IN THE SPECIFICATION


Please replace the paragraph beginning at page 4, line 6, with the following rewritten paragraph:

~~an SiO_x thin film~~ a SiO_x thin film formed on the surface of the polypropylene film where the tuning molecular chains are bonded, the SiO_x thin film being bonded to the tuning molecular chains interposed between the polypropylene film and the SiO_x thin film.

Please replace the paragraph beginning at page 5, line 1, with the following rewritten paragraph:

allowing a plasma polymerization between Si and O in a plasma atmosphere containing an organic silane compound and oxygen, thereby forming ~~an SiO_x thin film~~ a SiO_x thin film on the surface of the polypropylene film having the tuning molecular chains bonded therein.

Please replace the paragraph beginning at page 6, line 1, with the following rewritten paragraph:

 The gas barrier film whose base film is composed of polypropylene according to this invention comprises a polypropylene film whose surface is bonded with a tuning molecular chains having, as a main skeleton, an -O-Si-O- structure by enabling the oxygen (-O-) thereof to be bonded to carbon atoms of the surface of the polypropylene film; and ~~an SiO_x thin film~~ a SiO_x thin film formed on the surface of the polypropylene film where the tuning molecular chains are bonded; the SiO_x thin film being bonded to the tuning molecular chains interposed between the polypropylene film and the SiO_x thin film.

Please replace the paragraph beginning at page 11, line 24, with the following rewritten paragraph:

Then, a plasma polymerization is allowed to take place between Si and O chains bonded in a plasma atmosphere containing an organic silane compound and oxygen, thereby forming ~~an SiO_x thin film~~ a SiO_x thin film on the surface of PP film having the tuning molecular chains bonded therein to obtain a gas barrier film having PP as a base film.

Please replace the paragraph beginning at page 12, line 12, with the following rewritten paragraph:

With respect to the organic silane compound and oxygen, they should preferably be employed by mixing them at a molar ratio of; organic silane compound:oxygen = 3:7 - 5:5. If the mixing ratio between the organic silane compound and oxygen falls outside the aforementioned range, it may become difficult to form ~~an SiO_x thin film~~ a SiO_x thin film which is excellent in gas barrier property and in adhesivity to the PP film.

Please replace the paragraph beginning at page 12, line 26, with the following rewritten paragraph:

As explained above, the gas barrier film having PP as a base film according to this invention is featured in that it comprises a polypropylene film whose surface is bonded with tuning molecular chains having, as a main skeleton, an -O-Si-O- structure by enabling the oxygen (-O-) thereof to be bonded to carbon atoms of the surface of the polypropylene film; and ~~an SiO_x thin film~~ a SiO_x thin film formed on the surface of the polypropylene film where the tuning molecular chains are bonded, the SiO_x thin film being bonded to the tuning molecular chains interposed between the polypropylene film and the SiO_x thin film.

Please replace the paragraph beginning at page 23, line 10, with the following rewritten paragraph:

Upon confirming the stabilization of this plasma polymerization, the take-up roller 9 was rotated so as to unwind the OPP film that had been treated with the silane coupling reaction from the supply roller 8 and to enable the OPP film to pass, while being guided by a pair of feed rollers 10 and 11, through the plasma polymerization region formed between the electrodes 3 and 4 at a running speed of 10 mm/min, thereby depositing ~~an SiO_x thin film~~ a SiO_x thin film having a thickness of 100 nm on the surface of OPP film to obtain a gas barrier film. Thereafter, the pressure inside the chamber 1 was exhausted to 0.13 Pa over 30 minutes, and then, argon gas was admitted into the chamber 1 so as to increase the pressure inside the chamber 1 up to the atmospheric pressure, after which the take-up roller carrying the OPP film was taken out of the chamber 1.

Please replace the paragraph beginning at page 24, line 15, with the following rewritten paragraph:

A gas barrier film was manufactured by depositing ~~an SiO_x thin film~~ a SiO_x thin film having a thickness of 100 nm on the OPP film through a plasma polymerization between the TMOS and oxygen under the same conditions as in Example 1, except that the aforementioned argon plasma treatment and silane coupling reaction were not performed on the OPP film whose surface had been washed with acetone in advance.